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Application No.: 09/955,223

Docket No.: 30001070-2 US (1509-218)

REMARKS

Reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 90-98, 100-108, 110-117, and 119-131 are pending. Claim 90 has been amended to, among other reasons, clarify that the code is written into memory after a recording session. Claim 110 has been amended to clarify that the code is written into memory after the tape is repositioned. Claim 125 has been amended to correct minor typographical errors. New claim 129 has been added to secure an appropriate scope of protection to which applicants are believed entitled. Support for new claim 129 is believed to be found at at least paragraphs 101-102 of the instant specification. New claim 130 has been added to secure an appropriate scope of protection to which applicants are believed entitled. Support for new claim 130 is believed to be found at at least paragraphs 12, 101, and 102 of the instant specification. New claim 131 has been added to secure an appropriate scope of protection to which applicants are believed entitled. Support for new claim 131 is believed to be found at at least paragraphs 11, 101, and 102 of the instant specification.

Claims 90, 92, 94-97, 101, 103, 105-107, 110, 112, 114-116, and 124-128 are patentable over Johnston et al. (U.S. Patent 5,287,478)

The rejection of claims 90, 92, 94-97, 101, 103, 105-107, 110, 112, 114-116, and 124-128 under 35 U.S.C. 103(a) as being unpatentable in view of Johnston is hereby traversed for the following reasons.

Johnston fails to disclose or suggest writing a code, representative of the data in a data set that has been written during a recording session, into a memory incorporated within a tape cartridge after a tape drive receives a position command as claimed in the present claimed subject matter. The PTO asserts that Johnston teaches "writing to tape in a way that the data from the track was just written is read-back and its checksum is calculated (Johnston: Column 10 Line 50-53) and then the checksum (i.e. the code) along with the block ID are also written to the memory of the tape (Johnston: Column 11 Line 18-21)." Present Official Action at page 5, lines

**Application No.: 09/955,223****Docket No.: 30001070-2 US (1509-218)**

7-10. This appears to be based on an incorrect reading of Johnston. The identified portion and two additional lines (column 10, lines 50-56) of Johnston are reproduced herein for convenience and ease of reference:

RAW [read after write] is performed only when writing to tape. A track that was just written is read and its C1 ECC syndromes and checksum is calculated to verify that the track has been properly written. For C1 ECC, in memory, for each block of the track being read, there is stored any non-zero syndromes plus the block number. . . . If the number of bad blocks and the severity of the error is minimal, the frame is not rewritten.

(emphasis added)

The identified portion of Johnston appears to describe a read of a track being performed after a write of a track in order to calculate C1 ECC syndromes and a checksum. Johnston fails to disclose writing the calculated syndromes or checksum to the tape cartridge. The memory referred to in the identified portion of Johnston appears to be either the "large internal memory" of the microcontroller 305 (see, column 6, lines 64-66), the frame buffer 417 (see, column 29, lines 25-32), or the data buffer (see, column 30, lines 4-13). None of these memories meet the claim limitation of being a memory incorporated within the tape cartridge. For at least this reason, withdrawal of the rejection is respectfully requested.

Column 11, lines 18-21 is not dispositive as the identified portion refers to subcode data and block IDs written to the tape as part of a track being written to tape and not writing a code representative of data in a data set written during a recording session after receipt of a reposition command after the data set has been written to tape. The entirety of the section comprising the identified portion appears to refer to the overall data flow for arranging data in main buffer 404 and frame buffer 417 prior to writing a track to tape, during which "C1 ECC parity is appended to each track's data block pairs." Johnston at column 11, lines 20-21. That is, Johnston's parity information appears to be written as part of a recording session and the identified portion appears to refer to writing to the buffers and not to the tape cartridge. For at least this reason, withdrawal of the rejection is respectfully requested.

Further, the read after write process appears to read a track being written in order to determine whether the track needs to be written again, see, "If the severity of the error is minimal, the frame is not rewritten." That is, RAW performs a read after a write. A rewrite of a

**Application No.: 09/955,223****Docket No.: 30001070-2 US (1509-218)**

track occurs after a RAW determination that there is an error, there is no disclosure of writing a code after or as part of the RAW process described in Johnston. For at least this reason, withdrawal of the rejection is respectfully requested.

Based on the foregoing, claim 90 is patentable over Johnston and withdrawal of the rejection is respectfully requested.

Claims 92, 94-97, 101, 103, and 105-107 depend, either directly or indirectly, from claim 90, include further limitations, and are patentable over Johnston for at least the reasons advanced above with respect to claim 90. The rejection of claims 92, 94-97, 101, 103, and 105-107 should be withdrawn.

Claim 110 is patentable over Johnston for at least reasons similar to those advanced above with respect to claim 90 and withdrawal of the rejection is respectfully requested.

Claims 112, 114-116, and 124-128 depend, either directly or indirectly, from claim 110, include further limitations, and are patentable over Johnston for at least the reasons advanced above with respect to claim 110. The rejection of claims 112, 114-116, and 124-128 should be withdrawn.

**Claims 93, 104, and 113 are patentable over Johnston in view of Maekawa et al. (U.S. Patent 6,160,679)**

The rejection of claims 93, 104, and 113 under 35 U.S.C. 103(a) as being unpatentable over Johnston in view of Maekawa is hereby traversed. Claim 93 is patentable over Johnston in view of Maekawa for at least the following reason.

The PTO asserts that a person of ordinary skill in the art at the time of the present invention would have been motivated to combine Johnston with Maekawa in order to resolve "problems of limitation in size as well as the security concerns of the discrimination information." Official Action at page 10, lines 1-2. The PTO has failed to explain how a person of ordinary skill in the art would combine Johnston with Maekawa as asserted to arrive at the claimed subject matter. Maekawa appears to be concerned with applying tape specification discrimination information to a tape cartridge to prevent having to "load corresponding cartridge

**Application No.: 09/955,223****Docket No.: 30001070-2 US (1509-218)**

into the recording and/or reproducing unit to carry out reproducing operation every time to confirm the labeling on the tape cartridge. Maekawa at column 3, lines 37-39. Further, Maekawa specifically states that the tape cartridge referred to, i.e., as disclosed in the referred to Japanese Patent Application, includes an auxiliary memory element so that discrimination information is stored therein. That is, Maekawa appears to describe storing discrimination information usable to discern a tape type.

The "problems of limitation in size" of Maekawa refer to the label size on a tape cartridge for placing "information of the specification of the magnetic tape 7 and/or right or wrong state of recording of information signal by the holes provided at the cartridge body 4." Maekawa at column 3, lines 15-18. Further still, see Maekawa at column 10, lines 27-39, referring to the difficulties associated with a label on the tape cartridge, e.g., "in which the content described is unable to be read as the result of the fact that the label is separated (peeled) off or is soiled." The security concerns also refer to labeling issues and not code representative of data in a data set written during a recording session, e.g., "where information signals which require secrecy are recorded, it is impossible to describe its content on the label."

The PTO has failed to identify any teaching or suggestion in Maekawa or Johnston of writing a code as described above into such an auxiliary memory unit of a tape cartridge. Johnston appears to describe storing checksum information during the course of writing frames of information to tape and not writing such information remote from the written frames, much less from the tape on which the frames are recorded. As described above, Maekawa fails to disclose writing a code representative of data in a data set that has been written during a record session as claimed. Applicants fail to understand how a combination of Johnston and Maekawa would lead a person of ordinary skill in the art at the time of the present invention to store the checksum, i.e., asserted by the PTO to correspond to the claimed code representative of the data, of Johnston in the tape type discriminating information of Maekawa. Put another way, the combination of Johnston in view of Maekawa improves the tape labeling capability of Johnston without disclosing or suggesting the storage, into a memory within a tape cartridge, of a code representative of data in a data set written during a recording session.

**Application No.: 09/955,223****Docket No.: 30001070-2 US (1509-218)**

Based on at least the foregoing, claim 93 is patentable over Johnston in view of Maekawa and a Notice of Allowance is courteously solicited.

Claims 104 and 113 are patentable over Johnston in view of Maekawa for at least reasons similar to those advanced above with respect to claim 93 and a Notice of Allowance is courteously solicited.

Since claims 90 and 110 include limitations not disclosed or made obvious by Johnston et al., and the remaining claims depend on claims 90 and 110, and the secondary references do not cure the deficiencies in Johnston et al., a Notice of Allowance of claims 90-92, 94-98, 100-108, 110-112, 114-117, and 119-128 is believed to be in order and is courteously solicited.

New claim 129 is concerned with recording a code representative of tamper-free data in a dedicated portion of the cartridge set aside from the data set, features not found in the art of record. New claim 131 is concerned with recording a code into a memory comprising a cartridge memory that differs from the tape, features not found in the art of record as admitted by the PTO with respect to Johnston at page 9, lines 13-14 of the Official Action mailed June 22, 2006, "Johnston does not disclose expressly the memory is a cartridge memory." Additionally, the asserted combination of Johnston in view of Maekawa has been addressed above and similar arguments apply to claim 131.

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**Conclusion**

All objections and rejections having been addressed, it is respectfully submitted that the present application should be in condition for allowance and a Notice to that effect is earnestly solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 08-2025 and please credit any excess fees to such deposit account.

Respectfully submitted,

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